Easy Life® Hb

Hemoglobin Monitoring System

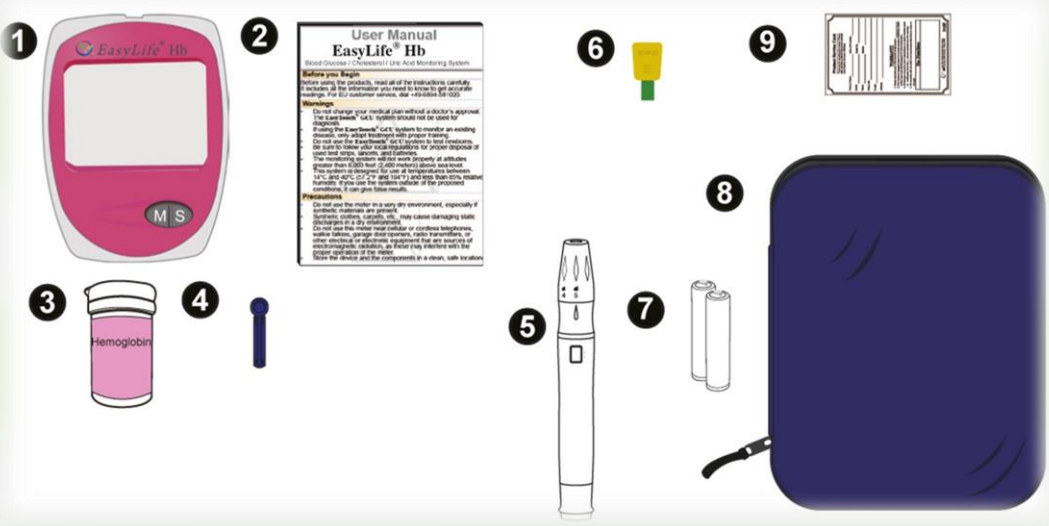
Intended Use:

The **EasyLife® Hb** Monitoring System is designed for in vitro diagnostic use only (external use only), and is suitable for self-testing. The system is for healthcare professionals and persons with anemia to measure hemoglobin. Simply add a drop of blood to the test strip, and the result is displayed on the screen in six seconds.

Test Principle:

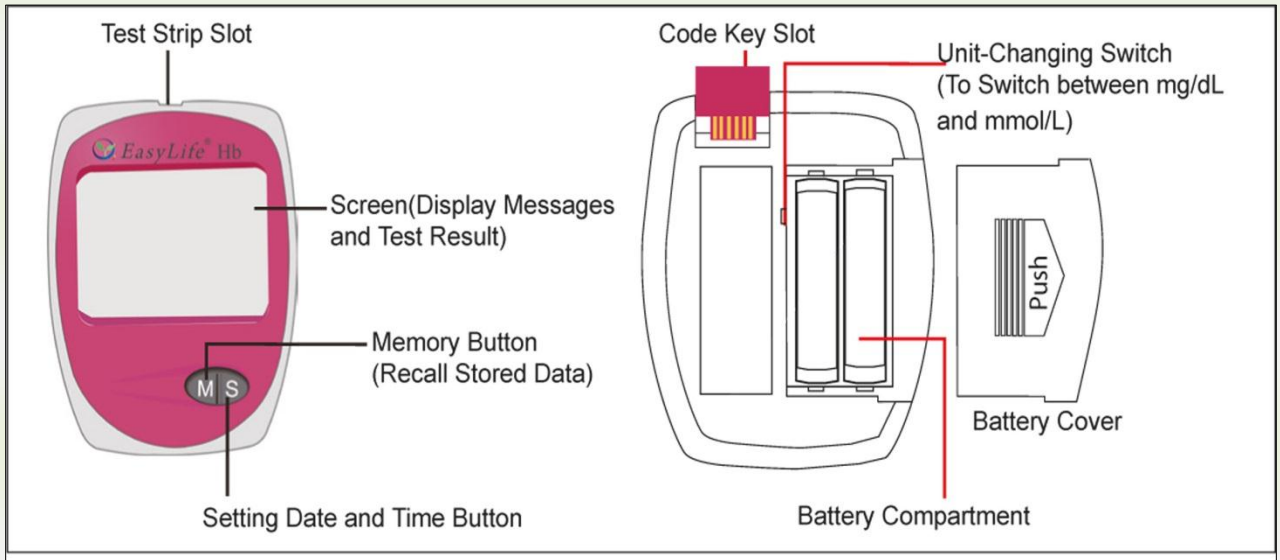
Hemoglobin measurements are based on electrical current changes caused by the reaction of hemoglobin with the reagent on the electrode of the strip.

Items in the package:

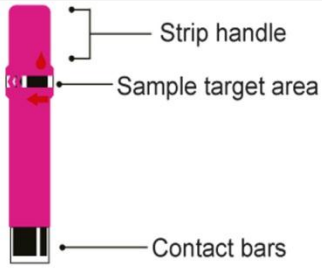


1. **EasyLife® Hb** Meter
2. **EasyLife® Hb** User Manual
3. **EasyLife®** Hemoglobin Test Strips,code key slot 7 manual
4. Lancets
5. Puncturer
6. Check Strip
7. AAA Alkaline Batteries (2)
8. Pouch
9. Service Card

Getting to Know the System:



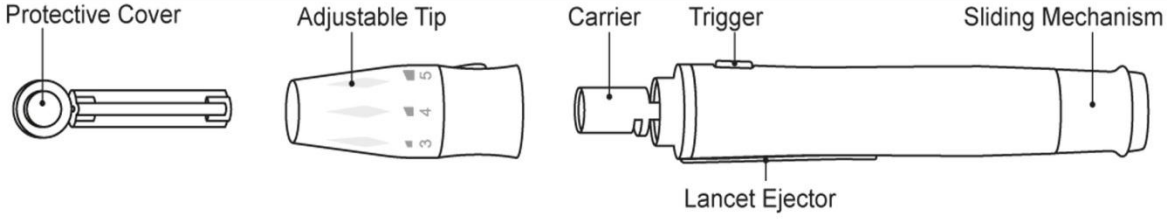
Hemoglobin Test Strips



Control Solution 3 ml

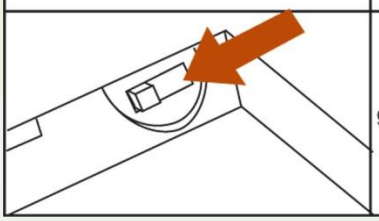
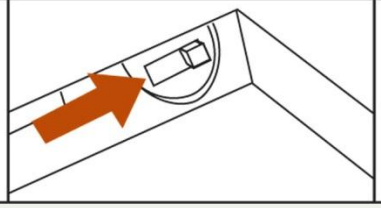
*Control Solution not included in the package

Structure of Puncturer and Lancet



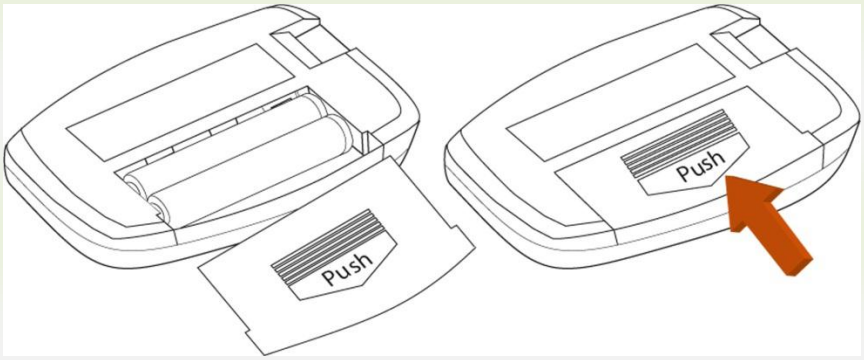
Checking the Unit of measure:

The **EasyLife® Hb** Meter can measure your hemoglobin in g/dL or mmol/L. Just adjust the switch in the battery compartment:

Left Position	Unit	Decimal point	Right Position	Unit	Decimal point
	g/dL	Yes		mmol/L	Yes

Inserting the Batteries:

1. Remove the battery cover on the back of the meter.
2. Insert two AAA batteries into the battery compartment.
3. Replace the battery cover.



Setting the time and date:

When you insert new batteries, the meter automatically enters date and time setting. Set the correct date before using the meter.

1. Press the "S" button to change to the current month.
2. Press the "M" button to shift to the date setting.
3. Adjust the date by pressing the "S" button until the current date appears.
4. Repeat this process to set the hour and minute.
5. Simply wait 30 seconds for the meter to turn off automatically.

Using the Check Strip

Insert the check strip into the test strip slot on the meter. The screen should display “OK”. If “X” appears on the screen, remove the check strip and reinsert it. If “X” is displayed again, call customer support. Do not test until the meter is working properly.

Use the check strip to check the meter when:

- You use the* EasyLife® Hb *Monitoring System for the first time.

- You drop the meter.

- You think there is something wrong with the results you got and you want to check whether the meter and test strips are working correctly or not.

Control Testing

By using control solution that has a measured amount of hemoglobin, you can check if your meter and strips are accurate. If your control results fall within the range on the test strip vial, you can be sure that the system is working properly.

When to control test

Perform a control test when you think there is something wrong with your measurement and you want to check if the meter and test strips are working correctly.

Items you need

EasyLife® Hemoglobin Meter

EasyLife® Hemoglobin Control Solution (not included)

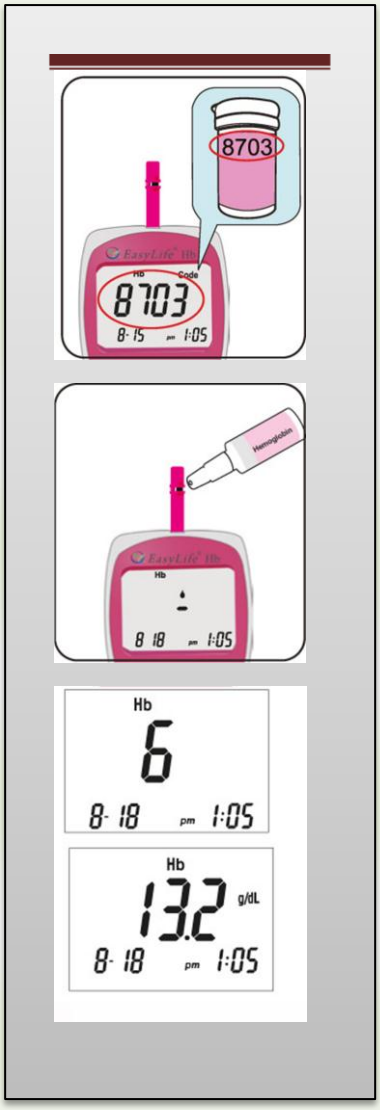
EasyLife® Hemoglobin Test Strips

EasyLife® Hemoglobin Code Key

Always write down the opening date of your hemoglobin control solution bottle and test strip vial.

Hemoglobin strips expire two months after first opening or until the expiration date, whichever comes first. Hemoglobin control solution expires one month after first opening or until the expiration date, whichever comes first. The meter stores control test results in its memory, where they appear just like test results.

Control Testing Steps



1.Insert the hemoglobin code key into the code key slot on the back of the meter.

2. Take one hemoglobin strip from the vial. Close the vial quickly.

3. Insert the test strip into the test strip slot on the meter. The meter first displays the code number, and then the blood symbol "🩸".

4. Hold the hemoglobin control solution bottle upside down and slowly squeeze the bottle to form a small drop. Discard the first drop of the solution. Squeeze out a second drop and let it touch the edge of the sample target area on the test strip. The test strip draws the control solution into the targeting zone.

5. Immediately after the meter sounds a beep, close the cap of the control solution. The meter then counts down from 6 and displays your result on the screen.

6. Check if the displayed value falls within the acceptable range shown on the test strip vial.

7. Remove the test strip from the meter and discard it.

Understanding Control Testing Results

You will find the acceptable range of hemoglobin levels for control on the test strip vial label.

If your control results fall within the acceptable range, you can begin to test your hemoglobin levels. If your control results are not within the acceptable range, consider the following items:

- Are your test strips or control solution expired?
- Have you ever forgotten to close your test strip vials or control solution bottles?
- Does the code in the meter match the code on the test strip vial?
- Did you follow all the operating instructions correctly?

Repeat the control test with a new test strip, following the steps exactly.

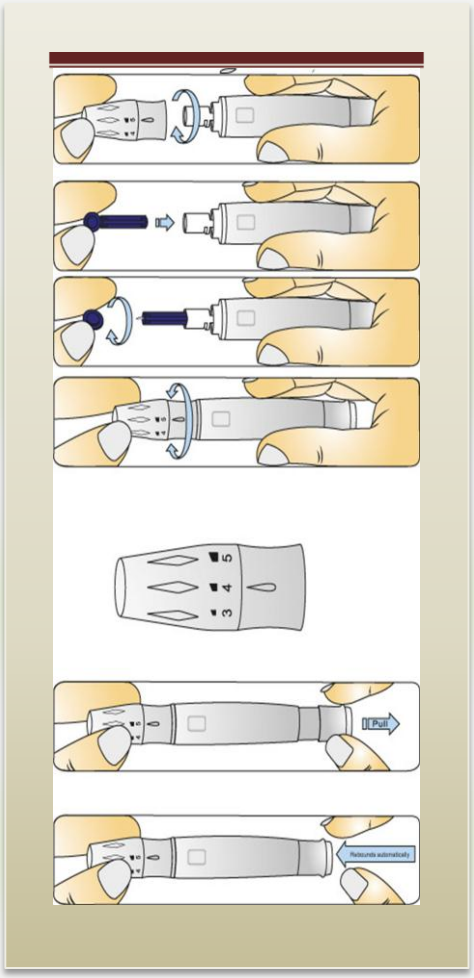
Blood Testing

Items You Need

1. **EasyLife® Hb** Meter
2. **EasyLife®** Hemoglobin Test Strips
3. Puncturer (Lancing Device) and lancets
5. Log sheet
6. Alcohol swab (not included)

Preparing the Puncturer

1. Unscrew the puncturer's adjustable tip.
2. Insert a lancet into the carrier.
3. Twist off the protective cover to expose the lancet tip.
4. Replace the adjustable tip tightly.
5. Choose a desired skin penetration depth by rotating the top portion of the adjustable tip until the appropriate setting number lines up with the arrow. Settings are based on skin type:
   - Depth 1~2 for soft or thin skin
   - Depth 3 for average skin
   - Depth 4~5 for thick or calloused skin
6. Hold the tip of the puncturer with one hand and pull the sliding mechanism back with the other. When you hear a click, the trigger rises up.
7. Release the sliding mechanism. The puncturer is now ready to obtain a blood sample.



Hemoglobin Testing

1.The first time you use the **EasyLife® Hb** Meter or open a new test strip vial, insert the code key from the test strip vial. Each test strip vial contains one code key. Make sure the number on the code key matches the code number on the vial of test strips you use.

2. Take one strip from the vial of hemoglobin test strips. Close the vial quickly.

3. Insert the test strip into the test strip slot on the meter. The meter first displays the code number, and then the blood symbol "🩸". Be sure that the code number displayed matches the code number on the test strip vial.

4. Clean your finger with an alcohol swab. Let it dry completely.

To increase blood flow to the lancing site, use warm water to wash your hands, and let your arm hang down at your side.

5. Place the puncturer on your finger.

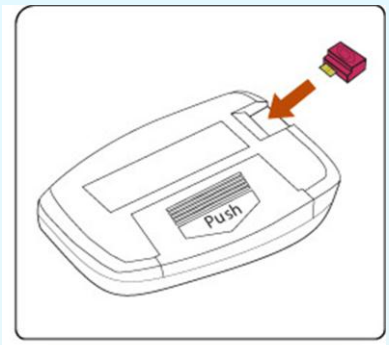
6. Press the trigger on the puncturer.

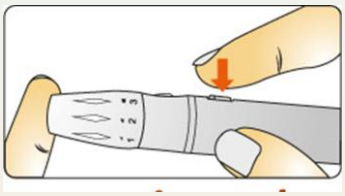
7. Withdraw the puncturer.

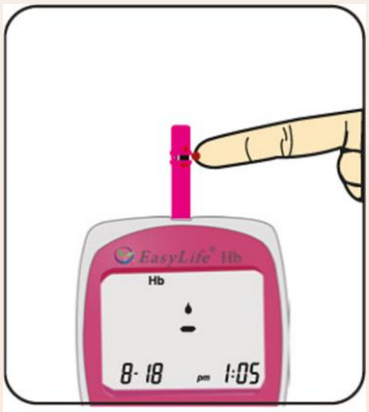
It is very important that you put enough blood on your test strip so that the entire reaction zone is covered. This ensures that your meter can give accurate and reliable results

8. Wipe away the first drop of blood and allow a second drop to form.

9. Touch the drop of blood to the top of the test strip target area. The target area turns red as the







strip absorbs the blood. The testing reaction starts when the meter sounds a beep. The meter then counts down from 6, shows your result on the screen, and stores your result in its memory automatically.

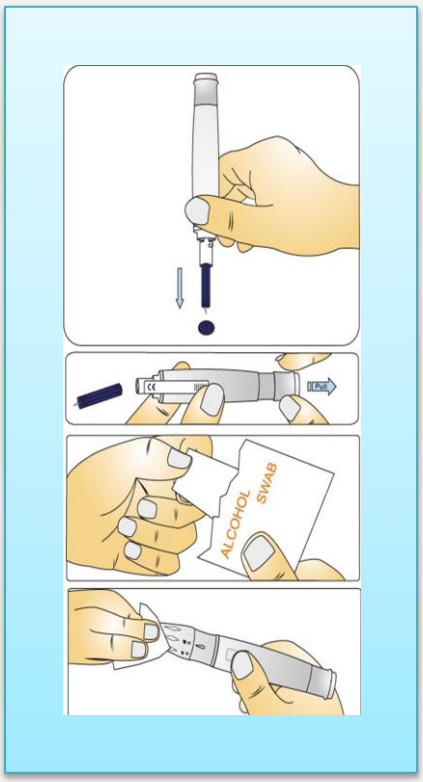
10. Record the your hemoglobin value on the provided log sheet.

Expected hemoglobin levels are as follows:

Male:13.5~16.5 g/dL (8.4~10.2 mmol/L)

Female:12.1~15.1 g/dL (7.5~9.4 mmol/L)

After Blood Testing



1. Pull the test strip out of the meter. The meter turns off by itself. Unscrew the adjustable tip of the puncturer.
2. Put the protective cover back on the lancet. Place the protective cover on a flat stable surface, and stick the lancet tip in the center.
3. Pull the sliding mechanism back and slide the lancet ejector forward simultaneously. This action ejects the lancet.
4. Carefully remove an alcohol swab from its packaging.
5. Thoroughly clean the tip of the puncturer with the alcohol swab.
6. Dispose of the used alcohol swab, lancet and test strip, and store the puncturer in a clean location.

Using the Meter Memory

The **EasyLife® Hb** Meter automatically stores the 100 most recent hemoglobin test results. You can review the test results in order from the newest to the oldest. If the memory is full, the oldest result is deleted as the newest result is added. The memory is not affected by replacing or removing the batteries.

Reviewing Hemoglobin Results

1. Press “M” to access the memory feature.
2. The most recent result will appear.
3. Each press of "M" will display in the second-most recent result.
4. Review more test results in order of the most recent to the oldest by repeatedly pressing the “M” button. After you review the oldest test result, the meter displays “---” and automatically turns off.

Deleting Results from Memory

1.When reviewing results, simply press and hold “S” to delete the displayed result.
2. The meter then sounds a beep as the memory icon flashes once.
3. Release “S” and the meter sounds three beeps in rapid succession to confirm that the result has been deleted.
4. The meter then returns to the first result.

Maintenance - *Taking Care of Your Meter*

• Do not submit your meter to strong impact or pressure.
• Keep your meter between -10°C and 60°C (14°F and 140°F) and less than 95% relative humidity. Do not store meter in areas such as the kitchen, bathroom, laundry room, or car.
• Keep the meter away from water.
• Do not disassemble the meter.
• If you have any questions, please contact customer service or your healthcare provider.

Changing the Batteries

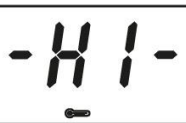
When the symbol “🔋” is displayed on the screen, replace the batteries immediately.
1. Slide battery cover off the back of the meter.
2. Remove the old batteries and insert 2 new AAA size batteries (1.5V) into the battery compartment.
3. Slide battery cover back in place and turn on your meter.

Cleaning the Meter

Clean the meter with a 70% isopropyl alcohol swab.

- ***DO NOT spray any cleaning solution directly onto the meter.***
- ***DO NOT use glass/household cleaning solutions.***
- ***DO NOT dampen the code key slot or the test strip slot.***
- ***DO NOT immerse the meter in liquid.***

Trouble shooting

Symbol	What it means	Action
	Low battery power.	Replace the batteries.
	"LO" flashes five times before the meter turns off.	Replace the batteries.
	The ambient temperature is too low.	Repeat the test in a warmer place,about 57.2°F~104°F (14°C~40°C). You may need to wait as long as 20 minutes before testing again.
	The ambient temperature is too high.	Repeat the test in a cooler place, about 57.2°F~104°F (14°C~40°C). You may need to wait as long as 20 minutes before testing again.
Hb	Your hemoglobin level is higher than 26 g/dL (16.1 mmol/L).	Re-check your hemoglobin level. If "HI" is displayed again, call your doctor immediately.
Hb	Your blood hemoglobin level is lower than 7 g/dL (4.3 mmol/L).	Re-check your hemoglobin level. If "LO" is displayed again, call your doctor immediately.
X	Operating procedure is incorrect. The test strip has been used, or the meter is not performing correctly.	Repeat the test with a new test strip. If the symbol is displayed again, contact customer service.
	The oldest test result stored in memory appears. The meter turns off automatically after three seconds.	No action required.
	1. Using a wrong code key or the code key is inserted improperly. 2. Meter hasn't been coded yet.	1. Be sure the code key is inserted into the code key slot completely. 2. Insert the code key.
	The code key is damaged.	Contact customer service.

Specifications:

Model no. ET-123	Hemoglobin
Measuring Range	7 ~ 26 g/dL (4.3 ~ 16.1 mmo/L)
Sample Volume	≧ 2.6 µl
Sample Type	Finger capillary whole blood
Hematocrit	20 ~ 70%
Memory Capacity	100 results
Test Time	6 seconds
Measurement Method	Amperometric
Operating Conditions	14 - 40 °C; ≤ 85% R.H.
Storage Conditions	-10 ~ +60 °C ≤ 95% R.H. (for meter) 4 ~ 30 °C (for strips)
Weight	59 g without batteries
Dimensions	88 x 64 x 22 HxWxD (mm)
Display	LCD (35 x 45 mm)
Battery	AAA * 2 Alkaline
Battery Life	More than 1,000 tests

Limitations:

The following compounds (left column) in the blood at the given concentrations can cause inaccurate results on the test:

Ascorbic Acid(Vitamin C)	>150 mg/dL
L-Dopa	>20 mg/dL
Dopamine	>20 mg/dL
Methyl-Dopa	>4 mg/dL
Hematocrit	<20%, >70%

Cholesterol up to 500 mg/dL or triglycerides up to 3,000 mg/dL do not significantly affect the hemoglobin results.